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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
|---|-------------|-----------------------|------------------------------|------------------|
| 10/716,959  | 11/19/2003  | Bogdanovich Alexander | 7100-038                     | 6455             |
| 23485   | 7590        | 01/30/2006            |                              |                  |
| JINAN GLASGOW<br>300 N. GREENE ST., SUITE 1600<br>P.O. BOX 2974<br>GREENSBORO, NC 27401 |             |                       | EXAMINER<br>PIERCE, JEREMY R |                  |
|   |             |                       | ART UNIT<br>1771             | PAPER NUMBER     |

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/716,959

Applicant(s)

ALEXANDER ET AL.

Examiner

Jeremy R. Pierce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 13-24, 26-29 and 31-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11, 12, 25 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/19/03.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of claims 1-33 in the reply filed on January 9, 2006 is acknowledged. Claims 34-40 are withdrawn from consideration.
2. In responding to the election of species requirement, Applicant has elected to prosecute the species of a 3-D woven fabric and a system, device, and/or network comprising sensors with fiber optic sensors being the particular sensor selected. However, Applicant failed to provide a listing of the claims that reads upon the elected species. However, the Examiner has determined that claims 1-7, 11, 12, 25, and 30 read on the elected species of a (1) 3-D woven fabric and (2) a system, device, and/or network comprising a fiber optic sensor. Therefore, claims 8-10, 13-24, 26-29, and 31-40 are withdrawn from consideration at this time.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 7, 11, 12, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Jayaraman et al. (U.S. Patent No. 6,381,482).

Jayaraman et al. teach a woven fabric having an information infrastructure component integrated therein (Abstract). A woven fabric meets the claim limitation for a three-dimensional engineered fiber perform because it is a three-dimensional structure having intersecting yarn components. With regard to claims 11, 12, and 30, optical fiber may be used in the sensor application (column 6, line 66 – column 7, line 8). With regard to claim 25, no further composite process is disclosed by Jayaraman et al.

5. Claims 1, 7, 11, 12, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Wheeler et al. (U.S. Patent No. 5,029,977).

Wheeler et al. disclose a woven fabric comprising optical fibers that are interwoven with structural fibers in order to provide sensing capabilities (column 1, line 67 – column 2, line 5). A woven fabric meets the claim limitation for a three-dimensional engineered fiber perform because it is a three-dimensional structure having intersecting yarn components. With regard to claim 25, although Wheeler et al. disclose that the sheet is preferably used in a resin composite (column 4, lines 48-53), Wheeler et al. certainly do not require the sheet be used in that manner. Also, claim 25 is merely the recitation of an intended use of the product, which does not give a limiting effect to the claim.

#### ***Claim Rejections - 35 USC § 102/103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jayaraman et al.

Claims 2-6 recite various processing limitations related to how and when the claimed "system, device, and/or network" is formed with the fabric. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). With regard to claims 2-4, whether the "system, device, and/or network" is introduced during or after the fabric-forming process or on a machine, the structure of the final product is not affected. With regard to claims 5 and 6, whether the "system, device, and/or network" is integrated automatically or manually, the final product will materially be the same. Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

8. Claims 2-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wheeler et al.

Claims 2-6 recite various processing limitations related to how and when the claimed "system, device, and/or network" is formed with the fabric. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). With regard to claims 2-4, whether the "system, device, and/or network" is introduced during or after the fabric-forming process or on a machine, the structure of the final product is not affected. With regard to claims 5 and 6, whether the "system, device, and/or network" is integrated automatically or manually, the final product will materially be the same. Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571)

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272-1479. The examiner can normally be reached on normal business hours, but works flextime hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeremy R. Pierce  
Examiner  
Art Unit 1771

January 23, 2006